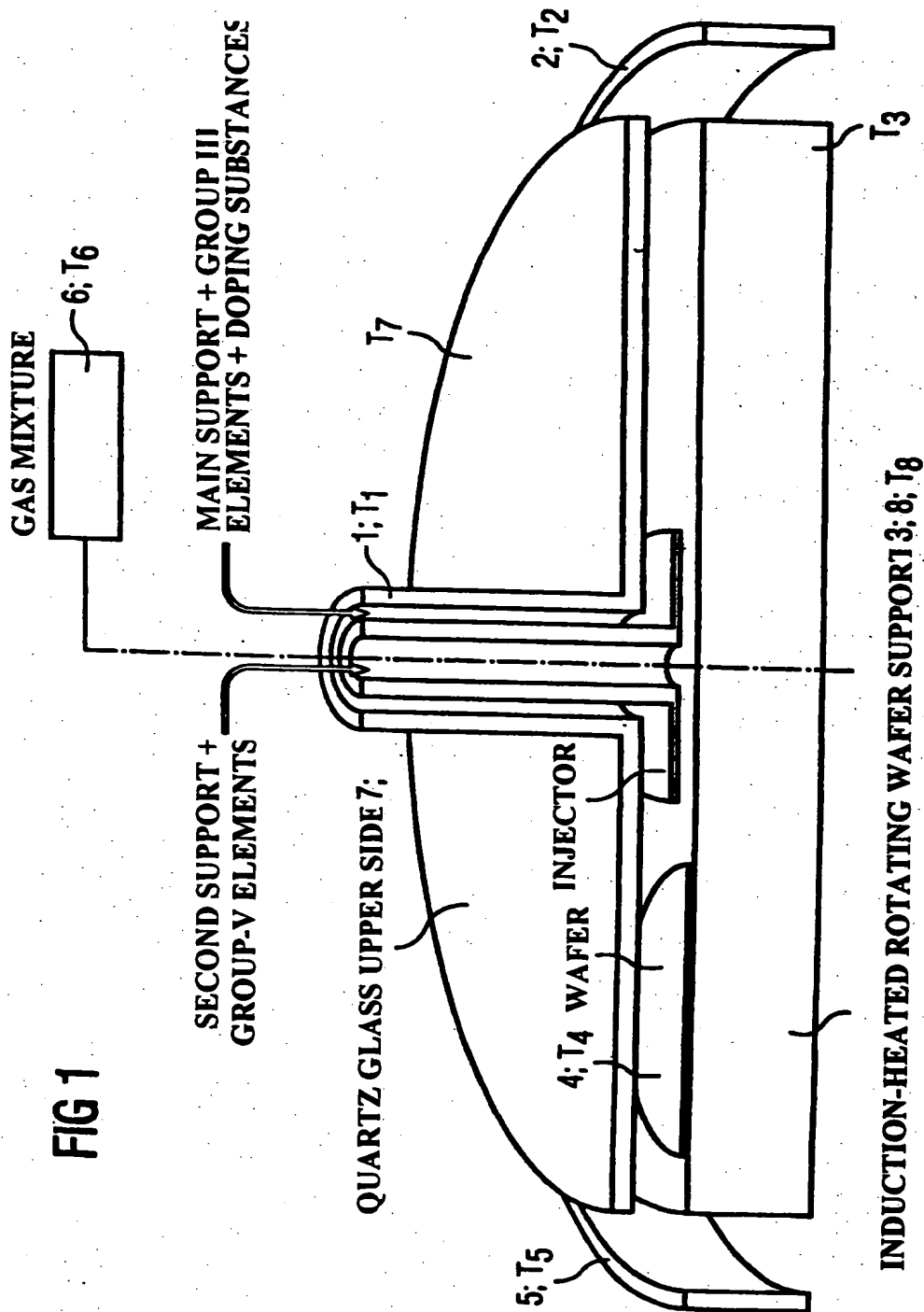




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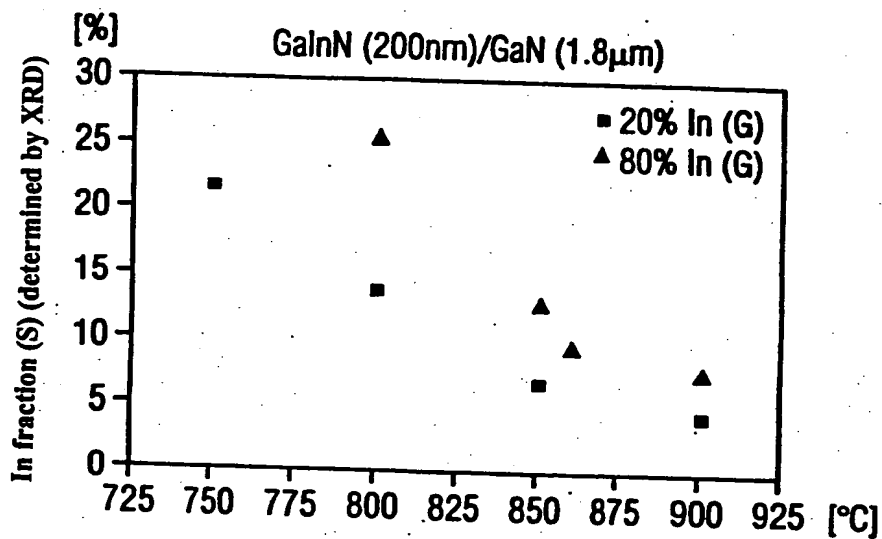




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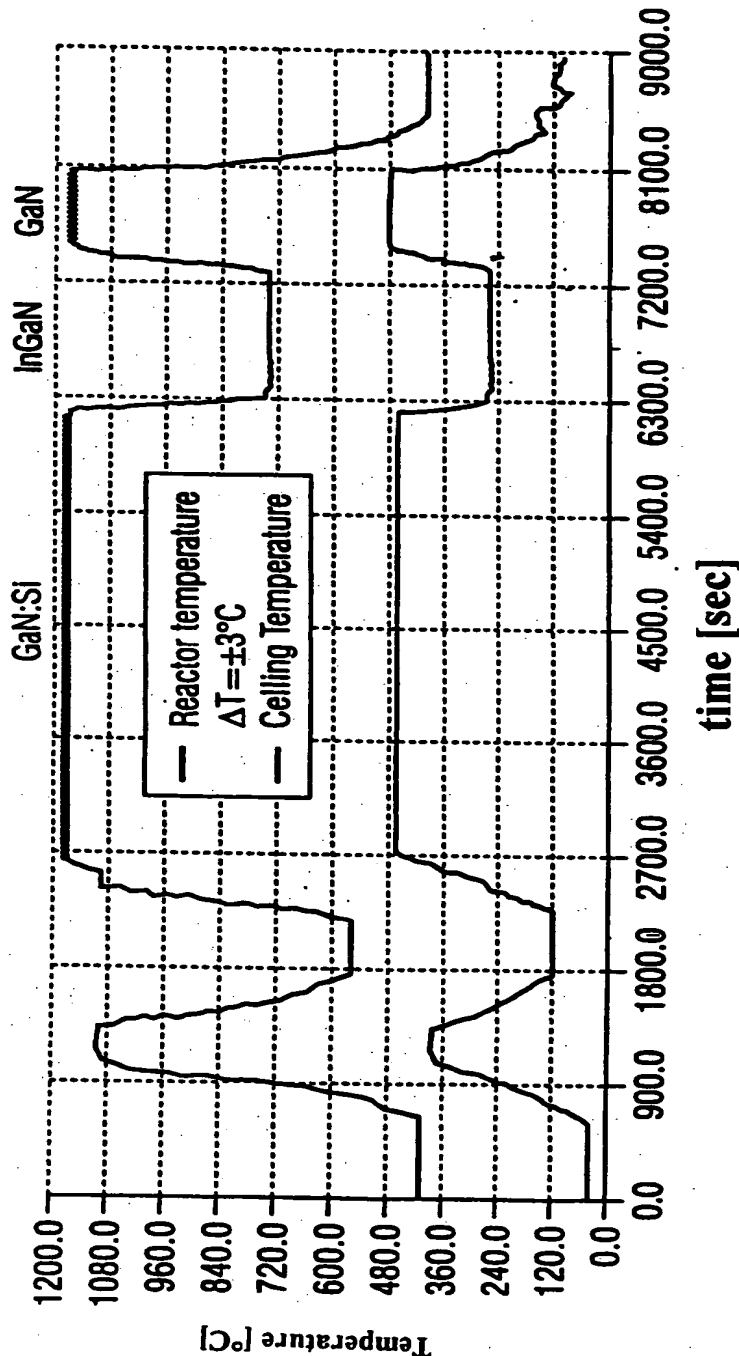
## FIG 2

In fraction as a function of the production temperature



LOG data of the AIXTRON MOVPE system  
 InGaN/GaN DH structure

FIG 3



JAN 21 2005

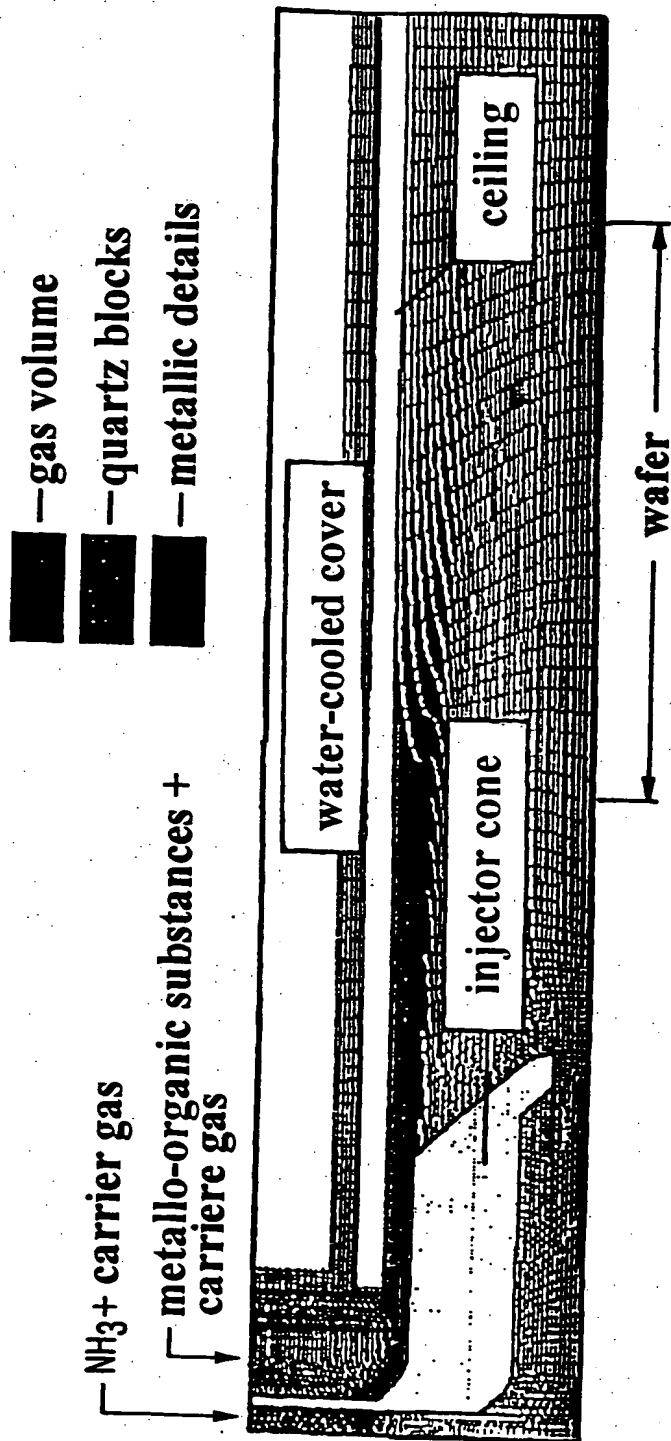
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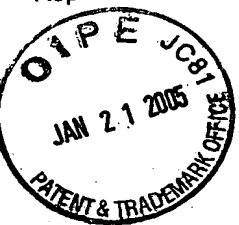
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# Mass Transfer Model

Schematic illustration the computing range and the finite volume lattice for analysing the mass transfer

FIG 3a





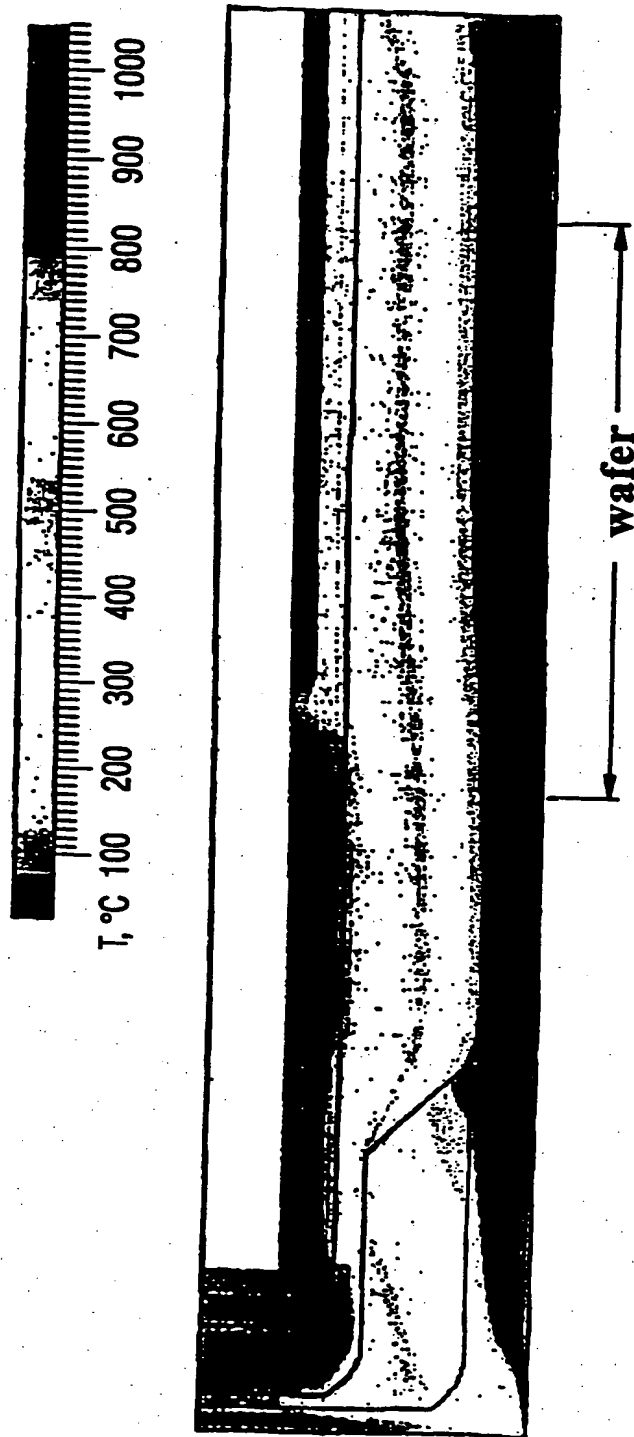
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## Temperature Distribution

The model explains:

- mixture and reaction of precursor flows
- grey diffuse radiation
- conjugated heat transmission

FIG 3b

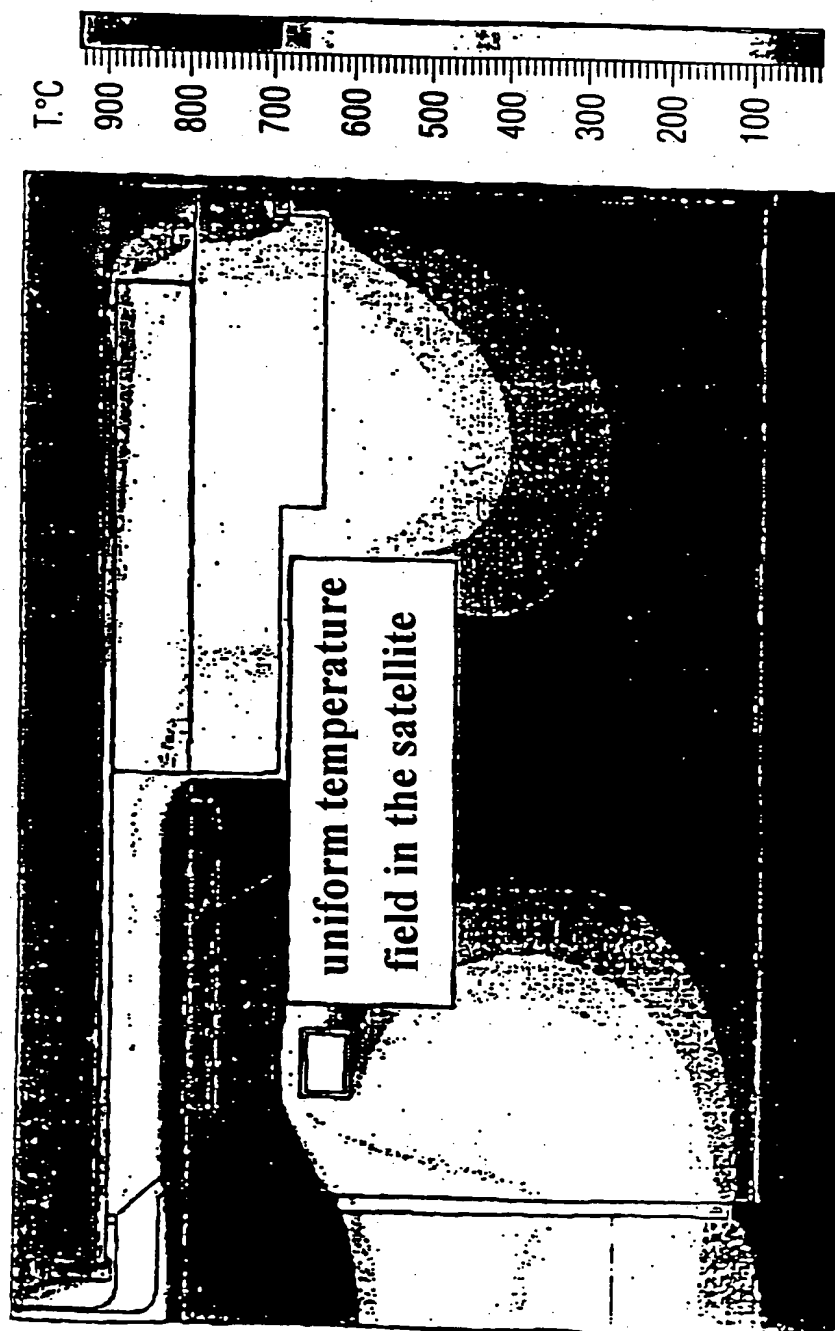


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Detailed Thermal Model  
Temperature Distribution

FIG 3c

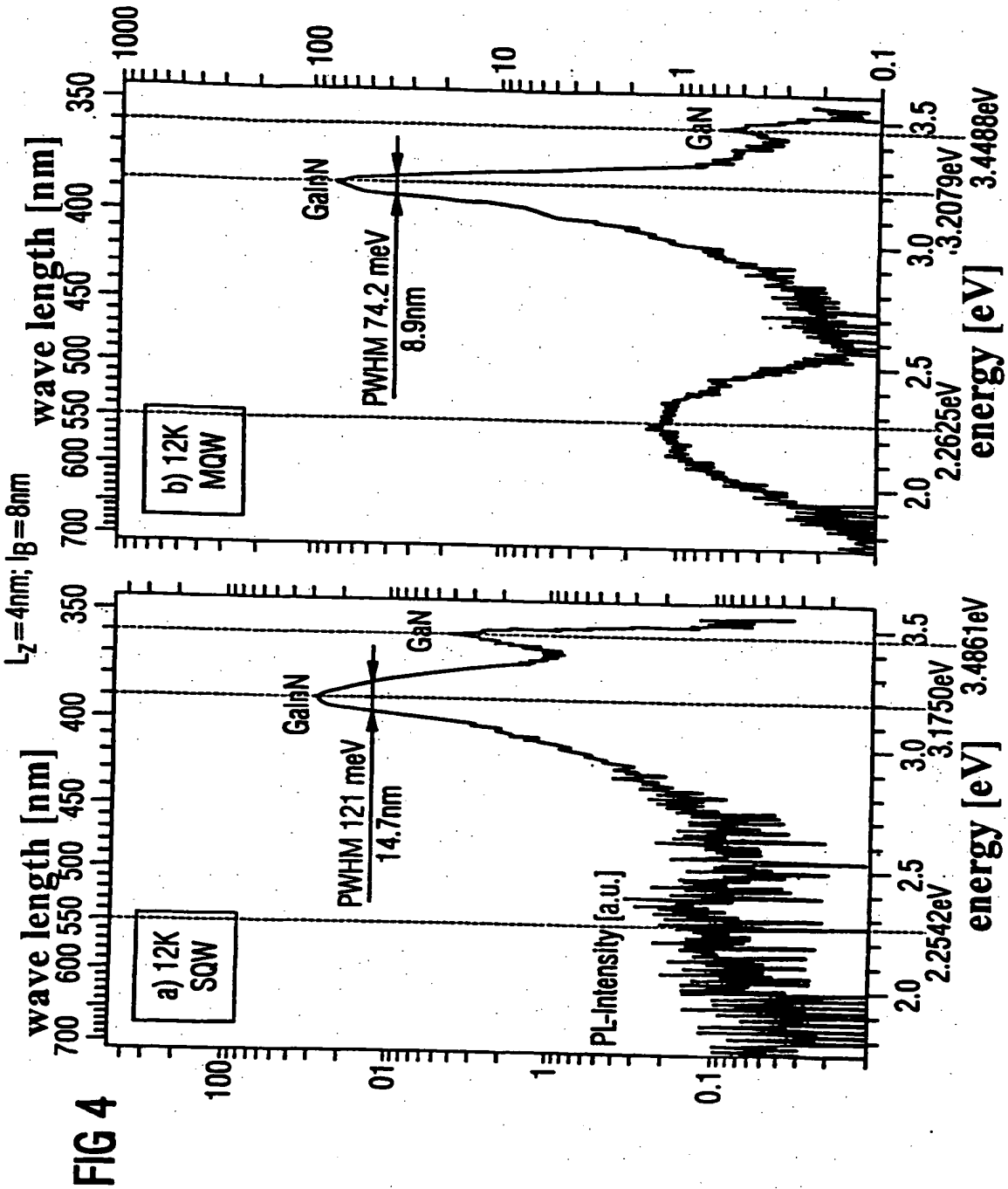
Total output 14 KW; cooling-gas mixture 50% $H_2$ +50% $N_2$

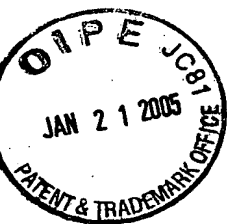




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LT(12K)PL of SQW and MQW structures





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# Uniformity of InGaN production in a multiple-wafer reaction chamber

Production in AIX 2000HT, wafer size: 7 x 2"

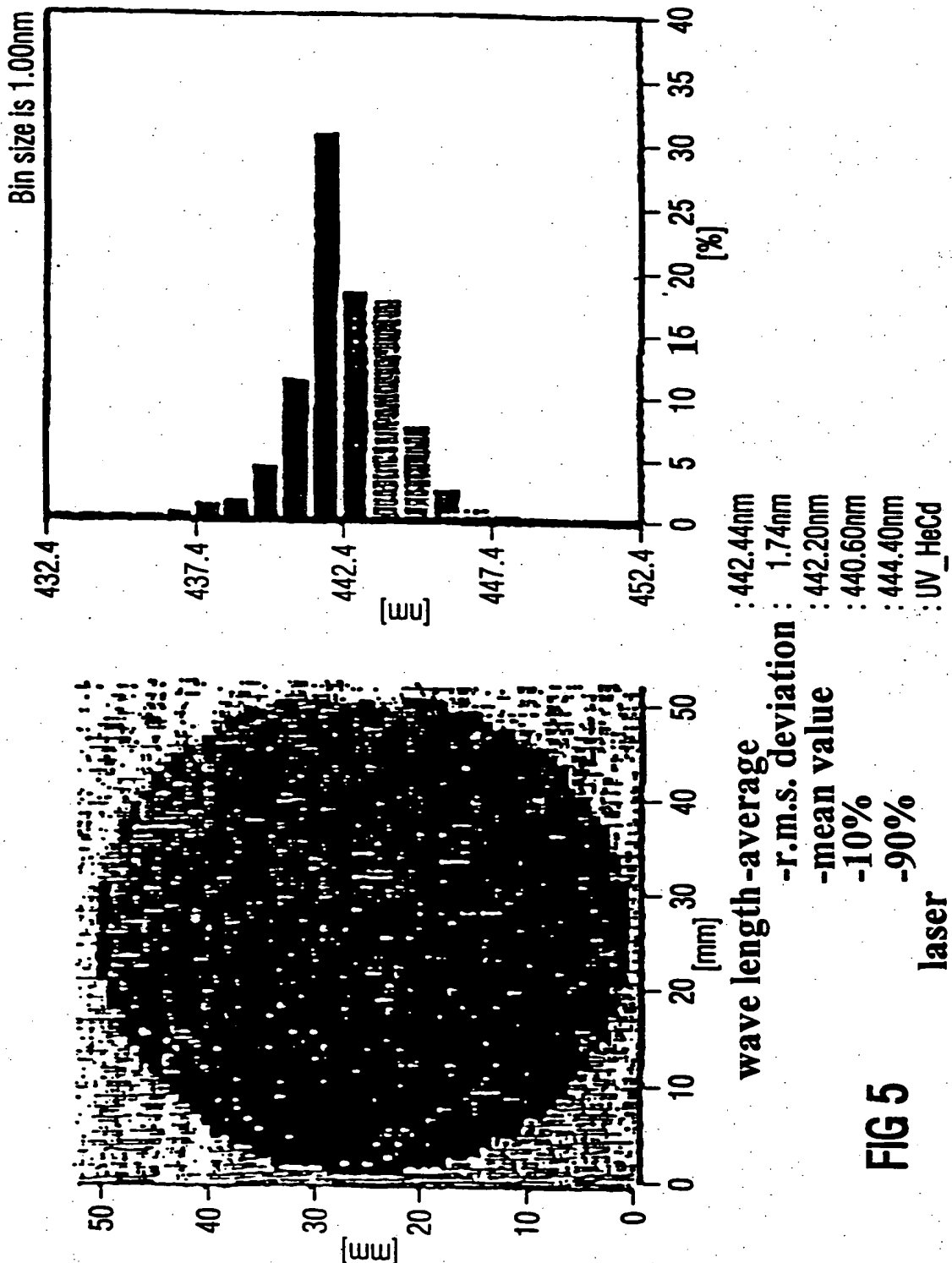
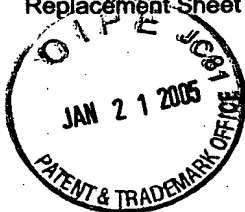


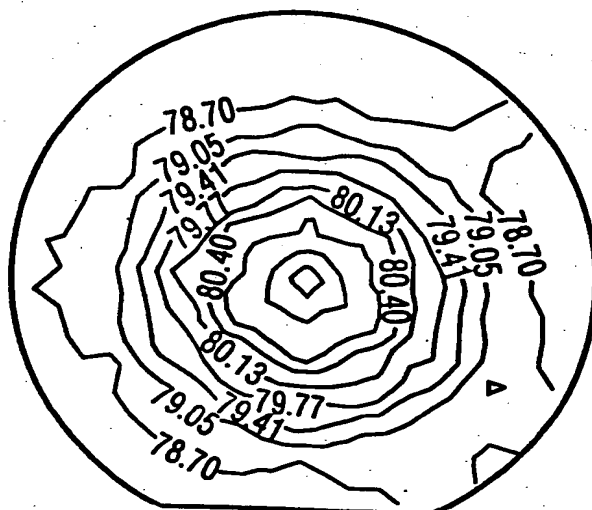
FIG 5



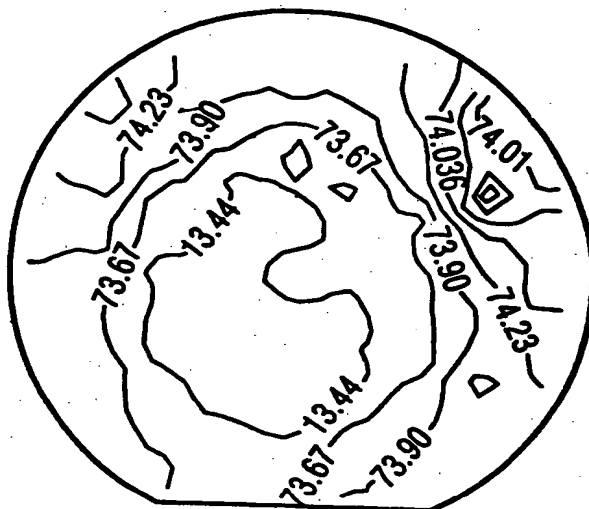


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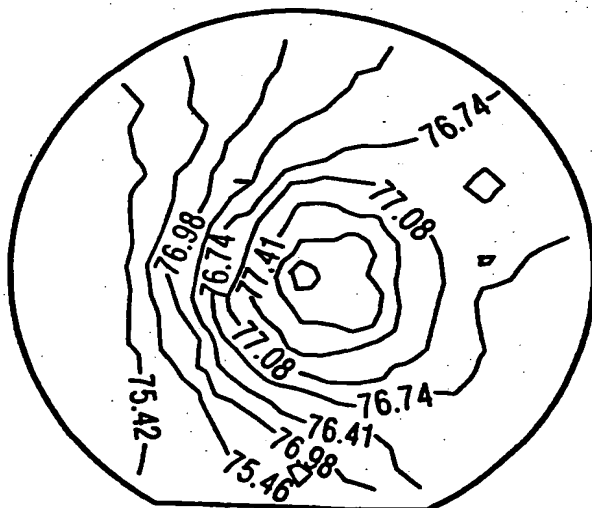
**FIG 6**  
**Wafer-to-wafer homogeneity of n-doped**  
**GaN/InGaN-DHS**



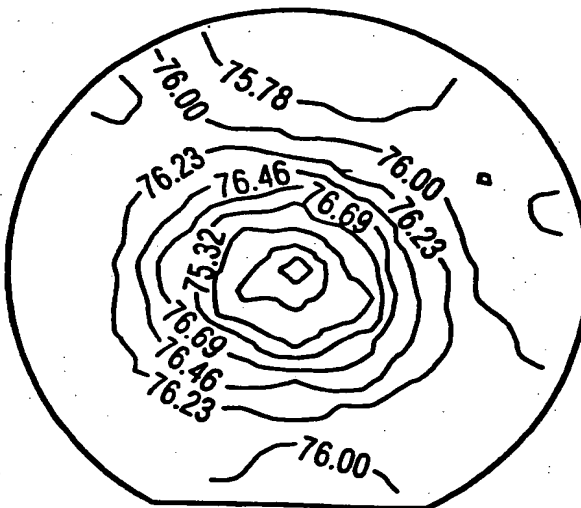
av. value: 79.2 ohm/sq  
std. dev. 1.19%



av. value: 73.8 ohm/sq  
std. dev. 0.61%

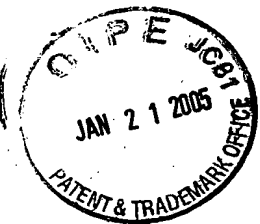


av. value: 76.4 ohm/sq  
std. dev. 1.10%



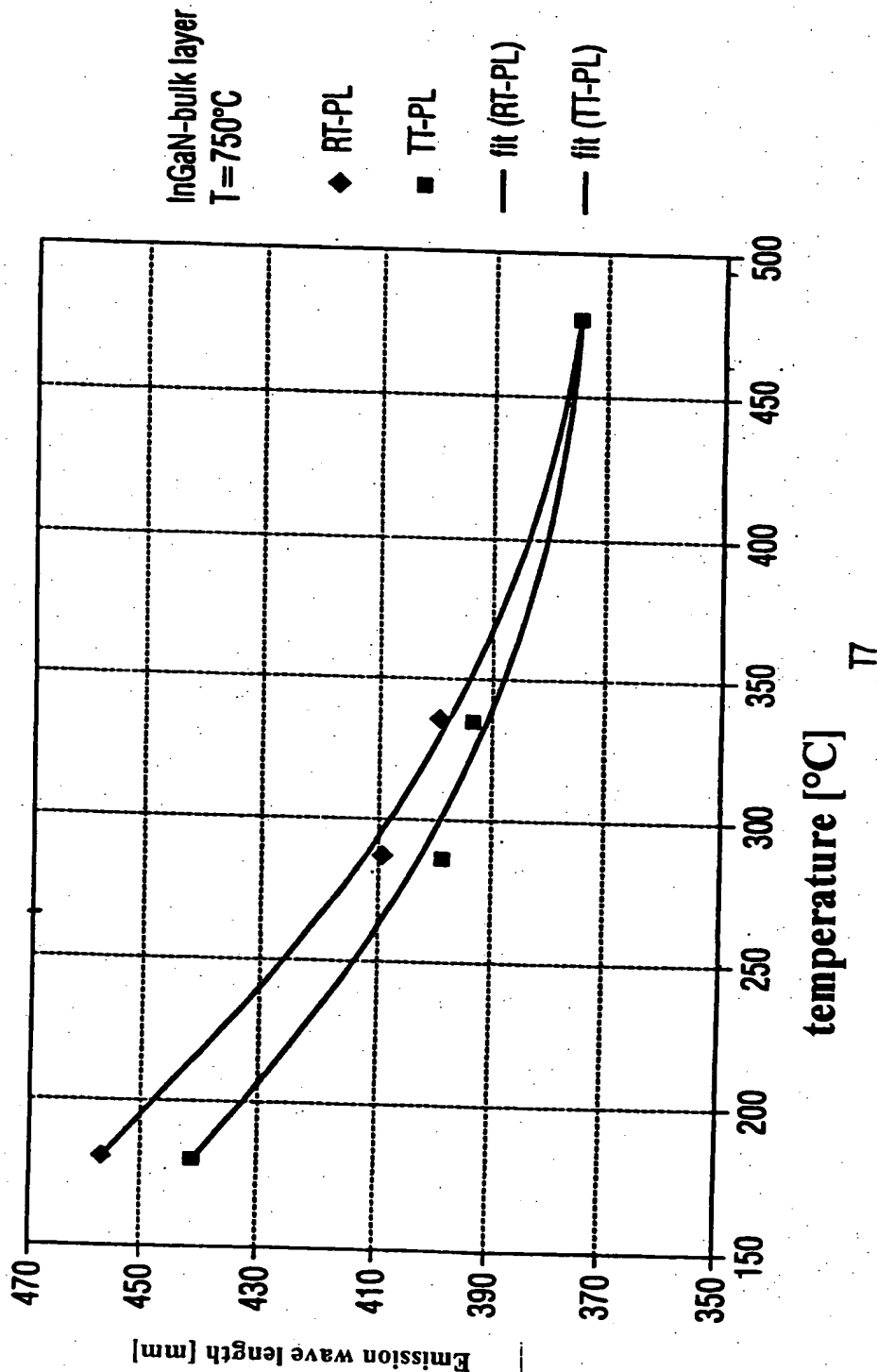
av. value: 76.2 ohm/sq  
std. dev. 0.68%

**Wafer-to-wafer r.m.s. deviation: 2,7%**



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**FIG 7**  
 In incorporation as a function of the temperature  
 of the upper side of the reaction chamber





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- reaction chamber underside F9
- reaction chamber injector T1
- reaction chamber ring T2
- reaction chamber upper side T7
- RF coil T8

FIG 8

